

66. (new) A method for muting expression of an endogenous gene in a cultured population of animal cells, the method comprising the steps of:

- (a) identifying a muting nucleic acid composition having a sequence that is homologous to a sequence in the endogenous gene, the nucleic acid composition being double stranded; and
- (b) delivering the muting nucleic acid into the population of cells; and
- (c) muting expression of the endogenous gene at level of post-transcription in the population as a whole, wherein such muting is independent of integration, expression, or transcription of the delivered nucleic acid.

67. (new) A method for muting expression of an endogenous gene in a cultured population of animal cells, the method comprising:

- (a) identifying a muting nucleic acid composition having a sequence that is homologous to a sequence in the endogenous gene, wherein the gene is one of a collagen, tumor necrosis factor (TNF), *tat*, and an immunoglobulin gene, the nucleic acid being double stranded; and
- (b) delivering the muting nucleic acid into the population of cells; and
- (c) muting expression of the endogenous gene at the level of post-transcription in the population as a whole, wherein such muting is independent of integration, expression, or transcription of the delivered nucleic acid.